



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

**MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION**

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www.miamidade.gov/economy

Johns Manville Corporation
717 17th Street
Denver, CO 80202

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: JM PVC Single Ply Roof Systems over Concrete Decks.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA No. 12-1113.24 and consists of pages 1 through 30.
The submitted documentation was reviewed by Jorge L. Acebo.



NOA No.: 14-0627.04
Expiration Date: 12/06/17
Approval Date: 09/29/16
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ROOFING SYSTEM APPROVAL

| | |
|--|------------|
| <u>Category:</u> | Roofing |
| <u>Sub-Category:</u> | Single Ply |
| <u>Materials:</u> | PVC |
| <u>Deck Type:</u> | Concrete |
| <u>Maximum Design Pressure:</u> | -225 psf. |

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

| <u>Product Name</u> | <u>Dimensions</u> | <u>Test Specifications</u> | <u>Product Description</u> |
|--|--|-----------------------------------|---|
| JM PVC | 50 mil x roll width x 100' 60 mil x roll width x 100' 80 mil x roll width x 75' | ASTM D4434 | PVC polyester reinforced membrane with DuPont™ Elvaloy® KEE. Available in 3.25', 5', 6.5', 10', and 12' rolls. |
| JM PVC Fleece Backed | 50 mil x roll width x 90' 60 mil x roll width x 90' 80 mil x roll width x 75' | ASTM D4434 | PVC polyester reinforced membrane backed with a lightweight polyester fleece. Available in 6.33' and 12' rolls. |
| JM PVC SD Plus | 50 mil x roll width" x 100' 60 mil x roll width x 100' 80 mil x roll width x 75' | ASTM D4434 | PVC polyester reinforced membrane. Available in 5' and 10' rolls. |
| DynaBase | 39-3/8" x 49'2" | ASTM D6163 | A glass reinforced SBS modified bitumen base sheet. |
| DynaBase HW | 39-3/8" x 49'2" | ASTM D6163 | A glass reinforced SBS modified bitumen base sheet for heat welded applications. |
| JM Vapor Barrier SA | 44.9" x 133' | Proprietary | Self-adhered, SBS modified bituminous sheet with tri-laminate woven polyethylene surface |
| JM SA Primer Low VOC | 5 gal. | Proprietary | One-part primer for SA membranes |
| JM PVC Profile | 1-1/2" wide x 1-1/4" high x 10' long | Proprietary | Non-reinforced, extruded PVC for simulating the aesthetics of standing seam metal roofing. |
| JM PVC Spine | 3/4" wide x 13/16" high x 7' long | Proprietary | Non-reinforced, extruded PVC for simulating the aesthetics of standing seam metal roofing. |
| Urethane Insulation Adhesive | N/A | Proprietary | Urethane insulation adhesive. |
| One-Step Foamable Adhesive | N/A | Proprietary | Two part urethane low rise foam insulation |
| JM Two Part Urethane Insulation Adhesive | N/A | Proprietary | A two-part urethane insulation adhesive. |



| | | | |
|--|---------|-------------|--|
| JM Green Two Part Urethane Insulation Adhesive | N/A | Proprietary | A two-part urethane insulation adhesive. |
| JM PVC Membrane Adhesive (Low VOC) | N/A | Proprietary | Low solvent based adhesive. |
| JM PVC Membrane Adhesive (Water Based) | N/A | Proprietary | Water based adhesive. |
| JM Roofing System Urethane Adhesive | N/A | Proprietary | A two-part urethane insulation adhesive. |
| JM PVC Penetration Pan | Various | ASTM D4434 | Molded PVC for flashing penetration. |
| JM PVC Pipe Boots | Various | ASTM D4434 | Non-reinforced molded PVC flashing penetrations. |
| JM PVC Universal Corner | Various | ASTM D4434 | Non-reinforced molded PVC for inside and outside corner flashing. |
| JM PVC T-Joint Patch | Various | ASTM D4434 | Non-reinforced PVC used to cover T-joints and fasteners. |
| JM PVC Detail Membrane | Various | ASTM D4434 | Non-reinforced PVC used for pipe and corner flashing. |
| JM PVC Detail Strip | Various | ASTM D4434 | PVC used to waterproof joints. |
| JM PVC Coated Metal | Various | ASTM D4434 | JM PVC laminated onto galvanized steel for metal flashings and edge details. |
| JM PVC Split Pipe Boot | Various | ASTM D4434 | Reinforced PVC used to flash vent stacks and other round penetrations |
| JM PVC Walkpad | Various | ASTM D4434 | Textured PVC walk pad. |
| JM PVC Heavy-Duty | Various | ASTM D4434 | Textured PVC walk pad. |

APPROVED INSULATIONS:**TABLE 2**

| Product Name | Product Description | Manufacturer (With Current NOA) |
|--|---|--|
| Invinsa Roof Board, | High-density Polyisocyanurate with fiber glass reinforced facers | Johns Manville |
| Invinsa FR Roof Board | High-density polyisocyanurate with mineral coated glass reinforced facers; bottom face is premium coated for combustible decks. | Johns Manville |
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI | Polyisocyanurate Insulation | Johns Manville |
| ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI | Polyisocyanurate Insulation with glass reinforced facers | Johns Manville |
| JM SECUROCK Gypsum-Fiber Roof Board | Fiber reinforced gypsum cover board | Johns Manville |
| Retro-Fit Board | High density, perlite base cover board | Johns Manville |
| RetroPlus Roof Board | High density, perlite base cover board | Johns Manville |
| Fesco Board | Rigid perlite roof insulation board. | Johns Manville |
| Fesco Foam | Polyisocyanurate Insulation with perlite facer | Johns Manville |
| ENRGY 3 FR, ENRGY 3 FR 25 PSI | Polyisocyanurate Insulation with inorganic coated glass reinforced facers; bottom face is premium coated for combustible decks. | Johns Manville |
| ACFoam II | Polyisocyanurate Insulation | Atlas Roofing Corp. |
| Multi Max FA | Polyisocyanurate Insulation | RMax Operating, LLC |

APPROVED FASTENERS:**TABLE 3**

| Fastener Number | Product Name | Product Description | Dimensions | Manufacturer (With Current NOA) |
|------------------------|---------------------------------------|--|-----------------------------------|--|
| 1. | All Purpose Fastener | Insulation and membrane fastener. | #14 x 4" max. #3 Phillips head | Johns Manville |
| 2. | UltraFast 3" Round Metal Plate | Galvalume AZ55 steel plate. | 3" round & 3" square | Johns Manville |
| 3. | UltraFast Fastener | Insulation Fastener. | #12 x 8" max. #3 Phillips head | Johns Manville |
| 4. | JM PVC RhinoPlate | Membrane bonding plate | 3" Round | Johns Manville |
| 5. | High Load Plates | Membrane seam plate | 2-3/8" round steel plate | Johns Manville |
| 6. | Structural Concrete Deck Fastener | #14 knurled thread, hammer-in fastener | 2-1/2" to 10" length | Johns Manville |
| 7. | UltraFast Square Recessed Metal Plate | Galvalume AZ55 steel plate. | 3" round & 3" square | Johns Manville |

EVIDENCE SUBMITTED:

| <u>Test Agency</u> | <u>Test Identifier</u> | <u>Test Name/Report</u> | <u>Date</u> |
|--|------------------------|---|-------------|
| FM Approvals | 3018807 | FM 4470 | 06/25/04 |
| | 3014692 | FM 4470 | 08/05/03 |
| | 3016629 | FM 4470 | 12/12/03 |
| | 3025881 | FM 4450 | 08/09/06 |
| | 797-07972-267 | FM 4470 | 01/04/13 |
| | 3023458 | FM 4450 | 07/18/06 |
| | 3007148 | FM 4450 | 04/19/00 |
| | 3033308 | FM 4470 | 09/03/08 |
| | 3035538 | FM 4470 | 05/25/10 |
| | 3037540 | FM 4450 | 10/20/10 |
| | 3035191 | FM 4470 | 05/20/09 |
| | 3040105 | FM 4470 | 11/24/10 |
| | 3030383 | FM 4470 | 05/13/08 |
| | 3052049 | FM 4470 | 07/01/15 |
| | 3046174 | FM 4470 | 04/03/13 |
| | 3044716 | FM 4470 | 10/19/12 |
| | 3039813 | FM 4470 | 06/28/10 |
| UL LLC | R10167 | UL 790 | 09/06/16 |
| Trinity ERD | JM-SC11320.03.16 | TAS 114 (D) | 03/10/16 |
| Momentum Technologies, Inc. | NX21J0A | ASTM D 4434 | 06/01/11 |
| | NX21J0B | ASTM D 4434 | 07/20/11 |
| | NX21J0C | ASTM D 4434 | 06/01/11 |
| Momentum Technologies Int. | CX23G3A | ASTM D 4434 | 04/14/14 |
| PRI Construction Materials Technologies, LLC | JMC-088-02-01.4 | ASTM D1876/TAS 117(B) | 07/01/14 |
| | JMC-107-02-01.7 | ASTM D5147/D903/D1876 TAS 117(A)/(B)/(C) | 03/31/16 |
| | JMC-143-02-01 | TAS 114 D | 07/01/13 |
| | JMC-193-02-01A | TAS 114(J) | 04/28/14 |
| | JMC-209-02-01 | TAS 114(J) | 10/15/14 |



APPROVED ASSEMBLIES

Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type A(1): One or more layers of insulation adhered with approved asphalt or adhesive; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ACFoam II, Multi Max FA Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| Invinsa Roof Board Minimum ¼" thick | N/A | N/A |

Note: All insulation shall be adhered to the deck with ¾" wide beads of Urethane Insulation Adhesive, 12" o.c. or JM Roofing System Urethane Insulation Adhesive in ½" to ¾" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Membrane fully adhered to the Invinsa Roof Board as specified below.

Option #1: JM PVC Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) at a rate of 0.83 gal./sq. on both membrane and substrate. Side laps will be a minimum 2.5" wide and shall be sealed with a minimum 1.5" wide heat weld.

Option #2: JM PVC or JM PVC SD Plus Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) at a rate of 0.67 gal./sq., on both membrane and substrate. Side laps will be a minimum 2.5" wide and shall be sealed with a minimum 1.5" wide heat weld.

Maximum Design Pressure: -112.5 psf. (See General Limitation #9.)

Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type A(2): One or more layers of insulation adhered with approved asphalt or adhesive; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| Invinsa Roof Board Minimum ¼" thick | N/A | N/A |

Note: All insulation shall be adhered to the deck with ¾" wide beads of JM Two Part Urethane Insulation Adhesive, 12" o.c. or JM Roofing System Urethane Insulation Adhesive in ½" to ¾" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Fleece Backed membrane fully adhered to the insulation as specified below.

Option #1: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 1 gal./sq., on the substrate. Side laps will be a minimum 2.5" wide and shall be sealed with a minimum 1.5" wide heat weld.

Option #2: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Option #3: Membrane is fully adhered to the insulation with approved hot asphalt applied at 20-25 lbs./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Maximum Design Pressure: -105 psf. (See General Limitation #9.)

Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type A(3): One or more layers of insulation adhered with approved asphalt or adhesive; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|---|-----------------------------------|-------------------------------------|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI Minimum 1.5" thick | N/A | N/A |

Note: All insulation shall be adhered to the deck with ¾" wide beads of JM Two Part Urethane Insulation Adhesive, One Step Foamable Adhesive, or JM Roofing System Urethane Adhesive spaced at 12" o.c. or hot asphalt. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Fleece Backed Membrane fully adhered to the insulation as specified below.

Option #1: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Option #2: Membrane is fully adhered to the insulation with approved hot asphalt applied at 20-25 lbs./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Maximum Design Pressure: -217.5 psf. (See General Limitation #9.)

Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type A(4): One or more layers of insulation adhered with approved asphalt or adhesive; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI | | |
| Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| Invinsa Roof Board | | |
| Minimum ¼" thick | N/A | N/A |

Note: All insulation shall be adhered to the deck with ¾" wide beads of JM Two Part Urethane Insulation Adhesive, 12" o.c. or JM Roofing System Urethane Insulation Adhesive in ½" to ¾" ribbons spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC membrane fully adhered to the insulation as specified below.

Option #1: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 0.67 gal./sq. on the substrate. Side laps will be a minimum 2.5" wide and shall be sealed with a minimum 1.5" wide heat weld.

Option #2: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Maximum Design Pressure: -105 psf. (See General Limitation #9.)

Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type A(5): One or more layers of insulation adhered with approved asphalt or adhesive; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|---|-----------------------------------|-------------------------------------|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI Minimum 1.5" thick | N/A | N/A |

Note: All insulation shall be adhered to the deck with ¾" wide beads of JM Two Part Urethane Insulation Adhesive, One Step Foamable Adhesive, or JM Roofing System Urethane Adhesive spaced at 12" o.c. or hot asphalt. 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC membrane fully adhered to the insulation as specified below.

Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Maximum Design
Pressure: -217.5 psf. (See General Limitation #9.)

Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type A(6): One or more layers of insulation adhered to a primed deck. Membrane is subsequently fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI Minimum 1.5" thick | N/A | N/A |
| Fesco Board Minimum 1.0" thick | N/A | N/A |
| Fesco Foam Minimum 1.5" thick | N/A | N/A |
| Retro-Fit Board Minimum ½" thick | N/A | N/A |

Note: All insulation shall be adhered to the primed deck in full mopping of approved hot asphalt within the EVT range and at a rate of 20-25 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Membrane: JM PVC Fleece Backed membrane fully adhered to the insulation with approved hot asphalt applied at 20-25 lbs./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Maximum Design Pressure: -150 psf. (See General Limitation #9)

Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type A(7): One or more layers of insulation adhered . Membrane is adhered with approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier: DynaBase adhered to structural concrete deck with Millennium Hurricane Force Membrane Adhesive applied in ½” – ¾” wide beads spaced 6” o.c.

One or more layers of the following insulations:

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI Minimum 1.5” thick | N/A | N/A |

Note: All insulation shall be adhered with ½” – ¾” wide beads of JM Roofing System Urethane Adhesive, spaced 12” o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: DynaBase adhered to insulation with Millennium Hurricane Force Membrane Adhesive applied in ½” – ¾” wide beads spaced 6” o.c..

Membrane: JM PVC Fleece Backed membrane adhered to base sheet with ½” – ¾” wide beads of JM Roofing System Urethane Adhesive, spaced 12” o.c. with minimum 2.5” wide side laps that shall be sealed with a minimum 1.5” wide heat weld.

Maximum Design Pressure: -67.5 psf. (See General Limitation #9)

Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type A(8): One or more layers of insulation adhered with approved asphalt or adhesive; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier: (Optional) One ply of JM Vapor Barrier SA self-adhered to the deck primed with JM SA Primer Low VOC applied at a rate of 0.5 gal./sq.

One or more layers of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| RetroPlus Roof Board, Invinsa Roof Board, or JM SECUROCK Gypsum-Fiber Roof Board Minimum 0.5" thick | N/A | N/A |
| Invinsa Roof Board, or JM SECUROCK Gypsum-Fiber Roof Board Minimum 0.25" thick | N/A | N/A |

Note: All insulation shall be adhered to the deck with ½"-¾" wide beads of JM Roofing System Urethane Adhesive, JM Two Part Urethane Insulation Adhesive, 12" o.c. or One Step Foamable Adhesive (JM SECUROCK Gypsum-Fiber Roof Board to ENRGY 3, ENRGY 3 25 PSI only). Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Fleece Backed adhered with JM RSUA applied in 0.5 – 0.75" ribbons spaced 12" o.c. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Maximum Design Pressure: -67.5 psf. (See General Limitation #9.)

Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type A(9): One or more layers of insulation adhered. Membrane is adhered with approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Barrier: DynaBase HW torch adhered to structural concrete deck.

One or more layers of the following insulations:

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| JM SECUROCK Gypsum-Fiber Roof Board | | |
| Minimum 1/4" thick | N/A | N/A |

Note: All insulation shall be adhered with 1/2" – 3/4" wide beads of JM Roofing System Urethane Adhesive, spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: DynaBase HW torch adhered to insulation.

Membrane: JM PVC Fleece Backed membrane adhered to base sheet with 1/2" – 3/4" wide beads of JM Roofing System Urethane Adhesive, spaced 12" o.c. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Maximum Design Pressure: -225 psf. (See General Limitation #9)

Membrane Type: Single ply, PVC

Deck Type 2I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete

System Type B: Base layer of insulation mechanically attached. Top layer of insulation fully adhered with approved asphalt or adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|---|-----------------------------------|-------------------------------------|
| ENRGY 3, ENRGY 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI Minimum 1.5" thick | 1 or 6 with 2 or 7 | 1:2 ft ² |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
| RetroPlus Roof Board Minimum 0.5" thick | N/A | N/A |

Note: All insulation shall be adhered to the deck with ¾" wide ribbons spaced 12" o.c. of JM Two-Part Urethane Insulation Adhesive or JM Green Two Part Urethane Insulation Adhesive, or 0.5-0.75" wide ribbons spaced 12" o.c. of Millennium PG-1 Pump Grade Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Membrane fully adhered to the insulation as specified below.

Option #1: JM PVC Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 1.67 gal./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Option #2: JM PVC Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 1.10 gal./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Option #3: JM PVC Fleece Backed Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 1.0 gal./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Maximum Design Pressure: - 45 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type C(1): One or more layers of insulation simultaneously attached. Membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI Minimum 1.5" thick | 1 with 2 or 7 | 1:2 ft² |

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Fleece Backed membrane adhered to the insulation as specified below.

Option #1: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 1 gal./sq. on the substrate. Side laps will be a minimum 2.5" wide and shall be sealed with a minimum 1.5" wide heat weld.

Option #2: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Option #3: Membrane is fully adhered to the insulation with approved hot asphalt applied at 20-25 lbs./sq with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Maximum Design Pressure: -45 psf. (See General Limitation #9)



Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type C(2): All layers of insulation simultaneously attached. Membrane adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| Plywood Minimum 19/32" thick | 1 with 2 or 7 | 1:2 ft² |

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener densit.y. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Fleece Backed Membrane adhered to the insulation as specified below.

Membrane is fully adhered to the insulation with approved hot asphalt applied at 20-25 lbs./sq. Side laps will be a minimum 2.5" wide and shall be sealed with a minimum 1.5" wide heat weld.

**Maximum Design
Pressure:** -45 psf. (See General Limitation #7)



Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Deck, Insulated

Deck Description: 2500 psi structural concrete.

System Type C(3): All layers of insulation simultaneously attached. Membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI Minimum 1.5" thick | 1 with 2 or 7 | 1:1.78 ft² |

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Fleece Backed Membrane fully adhered to the insulation as specified below.

Option #1: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Option #2: Membrane is fully adhered to the insulation with approved hot asphalt applied at 20-25 lbs./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Maximum Design Pressure: -52.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Deck, Insulated

Deck Description: 2500 psi structural concrete.

System Type C(4): One or more layers of insulation simultaneously attached. Membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following insulations:

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI Minimum 1.5" thick | 1 with 2 or 7 | 1: 2 ft² |

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener densit.y. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Membrane fully adhered to the insulation as specified below. with JM PVC Membrane Adhesive (Water Based) applied at a rate of 0.67 gal./sq., on the substrate. Side laps will be a minimum 2.5" wide and shall be sealed with a minimum 1.5" wide heat weld.

Maximum Design Pressure: -45 psf. (See General Limitation #9.)

Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Deck, Insulated

Deck Description: 2500 psi structural concrete.

System Type C(5): All layers of insulation simultaneously attached. Membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI Minimum 1.5" thick | 1 with 2 or 7 | 1:78 ft² |

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC Membrane fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with minimum 2.5" wide side laps that shall be sealed with a minimum 1.5" wide heat weld.

Maximum Design Pressure: -52.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Deck, Insulated

Deck Description: 2500 psi structural concrete.

System Type C(6): One or more layers of insulation preliminarily fastened; membrane bonded.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| JM SECUROCK Gypsum-Fiber Roof Board, Invinsa Roof Board, Invinsa FR Roof Board Minimum 0.25" thick | 1 with 4 | 1:5.33 ft² |
| Plywood Minimum 19/32" thick | 1 with 4 | 1:5.33 ft² |

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC or JM PVC SD Plus membrane is induction welded to JM PVC RhinoPlates with minimum 2.5" wide side lap and a minimum 1.5" heat weld offset from plates.

Maximum Design Pressures: -45 psf. (See General Limitation #9)

Membrane Type: Single Ply, PVC

Deck Type 3I: Concrete Deck, Insulated

Deck Description: 2500 psi structural concrete.

System Type C(7): One or more layers of insulation preliminarily fastened; membrane bonded.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI Minimum 1.5" thick | N/A | N/A |
| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| JM SECUROCK Gypsum-Fiber Roof Board, Invinsa Roof Board, Invinsa FR Roof Board Minimum 0.25" thick | 1 with 4 | 1:4 ft² |
| Plywood Minimum 19/32" thick | 1 with 4 | 1:4 ft² |

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: JM PVC or JM PVC SD Plus membrane is induction welded to JM PVC RhinoPlates with minimum 2.5" wide side lap and a minimum 1.5" heat weld offset from plates.

Maximum Design Pressures: -67.5 psf. (See General Limitation #7)

Membrane Type: Single ply, PVC
Deck Type 2I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete

System Type C(8): One or more layers of insulation simultaneously fastened; membrane bonded.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners | Fastener Density/ft² |
|--|---------------------------------------|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI Minimum 1" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI Minimum 0.5" thick | 1 with 4 | 1:2.13 ft ² |
| Invinsa Roof Board, Invinsa FR Roof Board, or JM SECUROCK Gypsum-Fiber Roof Board Minimum 0.25" thick | 1 with 4 | 1:2.13 ft ² |

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Standard RAS 117 for insulation attachment.

Membrane: JM PVC or JM PVC SD Plus membrane is induction welded to JM PVC RhinoPlates with minimum 2.5" wide side lap and a minimum 1.5" heat weld.

Maximum Design Pressures: -90 psf. (See General Limitation #7)



Membrane Type: Single ply, PVC

Deck Type 2I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete

Sytem Type C(9): One or more layers of insulation simultaneously fastened; membrane bonded.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners | Fastener Density/ft² |
|---|---------------------------------------|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PS , ENRGY 3 FR, ENRGY 3 FR 25 PSI | | |
| Minimum 1" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PS, ENRGY 3 FR, ENRGY 3 FR 25 PSI | | |
| Minimum 1" thick | 1 with 4 | N/A |
| Invinsa Roof Board, Invinsa FR Roof Board, or JM SECUROCK Gypsum-Fiber Roof Board | | |
| Minimum 0.25" thick | 1 with 4 | N/A |

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Standard RAS 117 for insulation attachment.

Membrane: JM PVC SD Plus membrane shall be induction welded as specified below

Option#1: Membrane shall be welded to JM PVC RhinoPlates spaced 12" o.c. in rows spaced 60" o.c. Side laps shall be a minimum 6" wide and sealed with a minimum 1.5" wide heat weld.

(Maximum Design Pressure -45 psf. See General Limitation #7)

Option#2: Membrane shall be welded to JM PVC RhinoPlates spaced 6" o.c. in rows spaced 72" o.c. Side laps shall be a minimum 6" wide and sealed with a minimum 1.5" wide heat weld.

(Maximum Design Pressure -82.5 psf. See General Limitation #7)

Option#3: Membrane shall be welded to JM PVC RhinoPlates spaced 6" o.c. in rows spaced 60" o.c. Side laps shall be a minimum 6" wide and sealed with a minimum 1.5" wide heat weld.

(Maximum Design Pressure -90 psf. See General Limitation #7)

Maximum Design Pressure: See options above.

Membrane Type: Single ply, PVC
Deck Type 2I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete

Sytem Type C(10): One or more layers of insulation simultaneously fastened; membrane bonded.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following:

| Base Insulation Layer | Insulation Fasteners | Fastener Density/ft² |
|--|-----------------------------|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI | | |
| Minimum 1.5" thick | N/A | N/A |

| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---------------------------------------|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI | | |
| Minimum 1" thick | 1 or 6 with 4 | 1:4 ft ² |

| | | |
|---|---------------|---------------------|
| Invinso Roof Board, Invinso FR Roof Board, or JM SECUROCK Gypsum-Fiber Roof Board | | |
| Minimum 0.25" thick | 1 or 6 with 4 | 1:4 ft ² |

Note: All layers shall be simultaneously fastened in a staggered pattern. Insulation panels listed are minimum sizes and dimensions. If larger panels are used, the number of fasteners shall be increased using the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Standard RAS 117 for insulation attachment.

Membrane: JM PVC SD Plus membrane is induction welded to JM PVC RhinoPlates. Side laps shall be a minimum 6" wide and sealed with a minimum 1.5" wide heat weld.

Maximum Design Pressure: 52.5 psf. (See General Limitation #7)

Membrane Type: Single ply, PVC
Deck Type 2I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete

System Type D(1): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI Minimum 0.5" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| Invinsa Roof Board, Invinsa FR Roof Board, or JM SECUROCK Gypsum-Fiber Roof Board Minimum 0.25" thick | N/A | N/A |
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI Minimum 0.5" thick | N/A | N/A |

Note: Top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Membrane: JM PVC membrane fastened with All Purpose Fasteners and High Load Plates spaced 6" o.c. within 6" wide laps, spaced 72" o.c. and sealed with minimum 1.5" wide heat welds.

Maximum Design Pressure: -45 psf. (See General Limitation #7.)



Membrane Type: Single ply, PVC
Deck Type 2I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete

System Type D(2): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|---|-----------------------------------|-------------------------------------|
| ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm AGF, ValuTherm AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI Minimum 1" thick | N/A | N/A |

Note: Top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Membrane: JM PVC SD Plus membrane attached through the preliminary attached insulation as specified below.

Fastening #1: Membrane is mechanically attached using All Purpose Fasteners and High Load Plates spaced 12" o.c. within 6" wide laps, spaced 54" o.c. and sealed with minimum 1.5" wide heat welds.
(Maximum Design Pressure -45 psf. See General Limitation #7)

Fastening #2: Membrane is mechanically attached using All Purpose Fasteners and High Load Plates spaced 6" o.c. within 6" wide laps, spaced 54" o.c. and sealed with minimum 1.5" wide heat welds.
(Maximum Design Pressure -60 psf. See General Limitation #7)

Fastening #3: JM PVC SD Plus membrane fastened with All Purpose Fasteners and High Load Plates spaced 6" o.c. within 6" wide laps, spaced 114" o.c. and sealed with minimum 1.5" wide heat welds.
(Maximum Design Pressure -45 psf. See General Limitation #7)

Maximum Design Pressure: -45 psf. (See General Limitation #7.)

Membrane Type: Single Ply, PVC

Deck Type 3: Concrete Decks, Non-Insulated

Deck Description: 2500 psi structural concrete.

System Type F: Membrane fully adhered to deck.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Membrane: JM PVC Fleece Backed Membrane fully adhered to the insulation as specified below.

Option #1: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Water Based) applied at a rate of 1 gal./sq., on the substrate with min. 1.5” heat welded side laps.

Option #2: Membrane is fully adhered to the insulation with JM PVC Membrane Adhesive (Low VOC) applied at a rate of 0.83 gal./sq., on both the membrane and the substrate for a total of 1.67 gal./sq. with min. 1.5” heat welded side laps.

Maximum Design Pressure: -217.5 psf. (See General Limitation #9.)

CONCRETE DECK SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the existing roof system is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117 and/or RAS 137, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.
Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. Insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE



NOA No.: 14-0627.04
Expiration Date: 12/06/17
Approval Date: 09/29/16
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